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     FILE 'HCAPLUS' ENTERED AT 13:02:38 ON 04 SEP 2009
L1        16343 S PNEUMOCOCCUS OR (STREPTOCOCCUS PNEUMONIAE)
L2         3497 S CAPSULAR POLYSACCHARIDE
L3         6686 S (REDUCTIVE AMINATION) OR (REDUCTIVELY AMINATED)
L4            9 S L1 AND L2 AND L3
L5           30 S L2 AND L3
L6           21 S L5 NOT L4
L7           17 S L6 AND (PY<2004 OR AY<2004 OR PRY<2004)
L8       166587 S KETONE
L9            0 S L7 AND L8
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=> file hcaplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.22       0.22

FILE 'HCAPLUS' ENTERED AT 13:02:38 ON 04 SEP 2009
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FILE COVERS 1907 - 4 Sep 2009  VOL 151 ISS 11
FILE LAST UPDATED: 3 Sep 2009  (20090903/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED:  Jun 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE:  Jun 2009

HCAplus now includes complete International Patent Classification (IPC)
reclassification data for the third quarter of 2009.

CAS Information Use Policies apply and are available at:

http://www.cas.org/legal/infopolicy.html

This file contains CAS Registry Numbers for easy and accurate
substance identification.

The ALL, BIB, MAX, and STD display formats in the CA/CAplus family
of databases have been updated to include new citing references
information.  This enhancement may impact record import into
database management software.  For additional information, refer
to NEWS 9.

=> s pneumococcus or (streptococcus pneumoniae)
         3571 PNEUMOCOCCUS
        58299 STREPTOCOCCUS
        33530 PNEUMONIAE
        13828 STREPTOCOCCUS PNEUMONIAE
                (STREPTOCOCCUS(W)PNEUMONIAE)
L1      16343 PNEUMOCOCCUS OR (STREPTOCOCCUS PNEUMONIAE)

=> s capsular polysaccharide
         7791 CAPSULAR
        71379 POLYSACCHARIDE
L2       3497 CAPSULAR POLYSACCHARIDE
                (CAPSULAR(W)POLYSACCHARIDE)

=> s (reductive amination) or (reductively aminated)
        69954 REDUCTIVE
        35087 AMINATION
         6522 REDUCTIVE AMINATION
                (REDUCTIVE(W)AMINATION)
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          3322 REDUCTIVELY
          8065 AMINATED
           251 REDUCTIVELY AMINATED
                (REDUCTIVELY(W)AMINATED)
L3        6686 (REDUCTIVE AMINATION) OR (REDUCTIVELY AMINATED)

=> s l1 and l2 and l3
L4           9 L1 AND L2 AND L3

=> d l4 1-9 ti abs bib

L4   ANSWER 1 OF 9  HCAPLUS  COPYRIGHT 2009 ACS on STN
TI   Multivalent pneumococcal polysaccharide-protein conjugate composition
AB   An immunogenic composition having 13 distinct polysaccharide-protein conjugates
     and optionally, an aluminum-based adjuvant, is described.  Each conjugate
     contains a capsular polysaccharide prepared from a
     different serotype of Streptococcus pneumoniae (1, 3,
     4, 5, 6A, 6B, 7F, 9V, 14, 18C, 19A, 19F and 23F) conjugated to a carrier
     protein.  The immunogenic composition, formulated as a vaccine, increases
     coverage against pneumococcal disease in infants and young children
     globally, and provides coverage for serotypes 6A and 19A that is not
     dependent on the limitations of serogroup cross-protection.  Methods for
     making an immunogenic conjugate comprising Streptococcus
     pneumoniae serotype 19A polysaccharide are also provided in which
     the serotype 19A polysaccharide is co-lyophilized with a carrier protein
     and conjugation is carried out in DMSO via a reductive
     amination mechanism.
AN   2008:804544  HCAPLUS <<LOGINID::20090904>>
DN   149:136165
TI   Multivalent pneumococcal polysaccharide-protein conjugate composition
IN   Hausdorff, William P.; Siber, George Rainer; Paradiso, Peter R.; Prasad,
     A. Krishna
PA   Wyeth, John, and Brother Ltd., USA
SO   PCT Int. Appl., 64pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 7
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     --------------      ----   --------    -------------------    --------
PI   WO 2008079732       A2     20080703    WO 2007-US87524        20071214
     WO 2008079732       A3     20081224
          W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA,
              CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI,
              GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG,
              KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME,
              MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL,
              PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN,
              TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
          RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
              IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF,
              BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW,
              GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
              BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA
     US 20070184071       A1     20070809    US 2006-644095         20061222
     AU 2007337101        A1     20080703    AU 2007-337101         20071214
PRAI US 2006-644095       A      20061222
     US 2005-669605P      P      20050408
     US 2006-395593       A2     20060331
     WO 2007-US87524      W      20071214
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
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L4 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2009 ACS on STN

TI Vaccines containing pneumococcal polysaccharide-protein conjugates and aluminum-based adjuvants

AB An immunogenic composition having 13 distinct polysaccharide-protein conjugates and optionally, an aluminum-based adjuvant, is described. Each conjugate contains a capsular polysaccharide prepared from a different serotype of Streptococcus pneumoniae (1, 3, 4, 5, 6A, 6B, 7F, 9V, 14, 18C, 19A, 19F and 23F) conjugated to a carrier protein. The immunogenic composition, formulated as a vaccine, increases coverage against pneumococcal disease in infants and young children globally, and provides coverage for serotypes 6A and 19A that is not dependent on the limitations of serogroup cross-protection. Methods for making an immunogenic conjugate comprising Streptococcus pneumoniae serotype 19A polysaccharide are also provided in which the serotype 19A polysaccharide is co-lyophilized with a carrier protein and conjugation is carried out in DMSO (DMSO) via a reductive amination mechanism.

AN 2007:876270 HCAPLUS <<LOGINID::20090904>>

DN 147:197430

TI Vaccines containing pneumococcal polysaccharide-protein conjugates and aluminum-based adjuvants

IN Hausdorff, William P.; Siber, George Rainer; Paradiso, Peter R.; Prasad, A. Krishna

PA Wyeth, John, and Brother Ltd., USA

SO U.S. Pat. Appl. Publ., 26pp., Cont.-in-part of U.S. Ser. No. 395,593.
CODEN: USXXCO

DT Patent

LA English

FAN.CNT 7

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20070184071	A1	20070809	US 2006-644095	20061222
	US 20060228380	A1	20061012	US 2006-395593	20060331
	AU 2006235013	A1	20061019	AU 2006-235013	20060331
	CA 2604363	A1	20061019	CA 2006-2604363	20060331
	EP 1868645	A1	20071226	EP 2006-740419	20060331
	R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU				
	JP 2008535838	T	20080904	JP 2008-505426	20060331
	MX 2007012336	A	20071121	MX 2007-12336	20071004
	IN 2007DN08081	A	20080704	IN 2007-DN8081	20071019
	KR 2007118700	A	20071217	KR 2007-725884	20071107
	CN 101180079	A	20080514	CN 2006-80017776	20071122
	AU 2007337101	A1	20080703	AU 2007-337101	20071214
	WO 2008079732	A2	20080703	WO 2007-US87524	20071214
	WO 2008079732	A3	20081224		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
	JP 2009161567	A	20090723	JP 2009-106688	20090424

PRAI US 2005-669605P P 20050408
US 2006-395593 A2 20060331
JP 2008-505426 A3 20060331
WO 2006-US12354 W 20060331
US 2006-644095 A 20061222
WO 2007-US87524 W 20071214
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

L4 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2009 ACS on STN
TI High-performance reverse phase chromatography with fluorescence detection assay for characterization and quantification of pneumococcal polysaccharides
AB A methods using high-performance reverse phase (RP) chromatog. with fluorescence detection, was developed to determine the composition and identity of
Streptococcus pneumoniae capsular
polysaccharide used in formulating conjugate vaccine for
prevention of pneumococcal infection. For the monosaccharide composition, the polysaccharides were subjected to hydrofluoric acid (HF) hydrolysis followed by trifluoroacetic acid (TFA). After acid hydrolysis, the released monosaccharides were re-N-acetylated and labeled with 2-aminobenzamide (2AB) by reductive amination
reaction. High-performance RP chromatog. was performed on C18 TSKODS 120T column. NMR was used to confirm chemical structure and purity of pneumococcal capsular polysaccharides.
AN 2006:290052 HCAPLUS <<LOGINID::20090904>>
DN 145:14947
TI High-performance reverse phase chromatography with fluorescence detection assay for characterization and quantification of pneumococcal polysaccharides
AU Canaan-Haden, Leonardo; Cremata, Jose; Chang, Janoi; Valdes, Yury; Cardoso, Felix; Bencomo, Vicente Verez
CS Department of Carbohydrate Chemistry, Center for Genetic Engineering and Biotechnology, Havana, 10600, Cuba
SO Vaccine (2006), 24(Suppl. 2), S2/70-S2/71
CODEN: VACCDE; ISSN: 0264-410X
PB Elsevier B.V.
DT Journal
LA English
OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Immunogenic conjugates obtained by reductive amination of capsular polysaccharide of serotype 5 Pneumococcus
AB The invention provides conjugates obtained from reductive amination of Pneumococcus serotype 5 capsular polysaccharide. The conditions for the reductive amination are distinguished from the traditional conditions in that they make it possible to avoid the appearance of an undesirable compound which harmful to the immunogenicity of the conjugates. In carbon NMR, this undesirable compound is characterized by a resonance signal between 13 and 14 ppm. Aminated polysaccharides used in the manufacture of conjugates thus have a carbon NMR spectrum not having a resonance signal between 13 and 14 ppm. The conditions of reductive amination offered by the invention are two. According to a first process, the reductive amination is carried out at a slightly acidic pH (4-6.5) for at most 4 h. According to a second process, the polysaccharide is first reduced, then fragmented, and finally

subjected to reductive amination itself, under traditional conditions or not. According to the process used, the structure of the aminated polysaccharide can vary, but these variations are without effect on immunogenicity.

AN 2004:591907 HCAPLUS <<LOGINID::20090904>>
DN 141:139132
TI Immunogenic conjugates obtained by reductive amination of capsular polysaccharide of serotype 5 Pneumococcus
IN Mistretta, Noelle; Danve, Emilie; Moreau, Monique
PA Aventis Pasteur, Fr.
SO Fr. Demande, 40 pp.
CODEN: FRXXBL
DT Patent
LA French
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2850106	A1	20040723	FR 2003-488	20030117
	FR 2850106	B1	20050225		
	US 20040170638	A1	20040902	US 2004-758142	20040115
	AU 2004207647	A1	20040812	AU 2004-207647	20040116
	CA 2512847	A1	20040812	CA 2004-2512847	20040116
	WO 2004067574	A1	20040812	WO 2004-FR89	20040116
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI				
	EP 1590373	A1	20051102	EP 2004-702733	20040116
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	BR 2004006819	A	20051227	BR 2004-6819	20040116
	NZ 541254	A	20080731	NZ 2004-541254	20040116
PRAI	FR 2003-488	A	20030117		
	US 2003-442154P	P	20030122		
	WO 2004-FR89	W	20040116		

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Multivalent pneumococcal capsular polysaccharide conjugate vaccines employing genetically detoxified pneumolysin as a carrier protein
AB A genetically detoxified pneumolysin, pneumolysoid (PLD), was investigated as a carrier protein for pneumococcal capsular polysaccharide (CPS). Such a CPS-PLD conjugate might provide addnl. protection against pneumococcal infections and resultant tissue damage. A single point mutant of pneumolysin was selected, which lacked measurable hemolytic activity, but exhibited the overall structural and immunol. properties of the wild type. PLD conjugates were prepared from CPS serotypes 6B, 14, 19F, and 23F by reductive amination. The structural features of free PLD, as well as the corresponding CPS-PLD, as assessed by CD spectroscopy, were virtually indistinguishable from the wild type counterpart. Each of the CPS monovalent and tetravalent conjugate formulations were examined for immunogenicity in mice at both 0.5 and 2.0 μg CPS per dose. Tetanus toxoid (TT) conjugates were similarly created and used for comparison. The resultant conjugate vaccines elicited high levels of CPS-specific IgG that was opsonophagocytic for all serotypes tested. Opsonophagocytic titers, expressed as reciprocal dilns. resulting in 50% killing using HL-60 cells, ranged from 100 to 30000, depending on the serotype and formulation. In general, the lower dose and

tetravalent formulations yielded the best responses for all serotypes (i.e., either equivalent or better than the higher dose and monovalent formulations). The PLD conjugates were also generally equivalent to or better in CPS-specific responses than the TT conjugates. In particular, both the PLD conjugate and the tetravalent formulations induced responses for type 23F CPS that were approx. an order of magnitude greater than that of the corresponding TT conjugate and monovalent formulations. In addition, all the PLD conjugates elicited high levels of pneumolysin-specific IgG which were shown to neutralize pneumolysin-induced hemolytic activity in vitro. As a result of these findings, PLD appears to provide an advantageous alternative to conventional carrier proteins for pneumococcal multivalent CPS conjugate vaccines.

AN 1998:644179 HCAPLUS <<LOGINID::20090904>>
DN 130:64887
TI Multivalent pneumococcal capsular polysaccharide conjugate vaccines employing genetically detoxified pneumolysin as a carrier protein
AU Michon, Francis; Fusco, Peter C.; Minetti, Conceicao A. S. A.; Laude-Sharp, Maryline; Uitz, Catherine; Huang, Chun-Hsien; D'Ambra, Anello J.; Moore, Samuel; Remeta, David P.; Heron, Iver; Blake, M. S.
CS North American Vaccine, Inc., Beltsville, MD, 21046, USA
SO Vaccine (1998), 16(18), 1732-1741
CODEN: VACCDE; ISSN: 0264-410X
PB Elsevier Science Ltd.
DT Journal
LA English
OSC.G 27 THERE ARE 27 CAPLUS RECORDS THAT CITE THIS RECORD (27 CITINGS)
RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Oligosaccharide conjugate vaccines
AB An improved method is provided for producing oligosaccharide conjugate vaccines. The method comprises (1) reacting an oligosaccharide having a terminal reducing group with diaminoethane in the presence of pyridine borane such that reductive amination occurs; (2) reacting the aminated oligosaccharide with a mol. having 2 functional groups, 1 of which can react with the terminal group of the activated oligosaccharide and the other of which can react with a carrier protein; and (3) reacting the activated oligosaccharide product of 2 with a carrier protein to form a conjugate. The bifunctional mol. is e.g. a diester of adipic acid or of succinic acid. The process of the invention permits the efficient synthesis of glycoconjugates at production rates significantly faster than currently employed methods. Capsular polysaccharide of Streptococcus pneumoniae (e.g. S. pneumoniae type 6A polysaccharide) was hydrolyzed, and the resulting oligosaccharide haptens were treated with diaminomethane, pyridine borane, and then with the succinimidyl diester of succinic (or adipic) acid. The activated oligosaccharides were conjugated to Corynebacterium diphtheriae CRM197 protein, and the immunogenicity of the glycoconjugates was determined The immune response to the glycoconjugates was monospecific and homogeneous.
AN 1992:253939 HCAPLUS <<LOGINID::20090904>>
DN 116:253939
OREF 116:43051a,43054a
TI Oligosaccharide conjugate vaccines
IN Porro, Massimo
PA American Cyanamid Co., USA
SO Eur. Pat. Appl., 38 pp.
CODEN: EPXXDW
DT Patent

LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 477508	A1	19920401	EP 1991-113163	19910806
	EP 477508	B1	19950712		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE				
	US 5153312	A	19921006	US 1990-590649	19900928
	IL 99119	A	19961114	IL 1991-99119	19910807
	JP 06340550	A	19941213	JP 1991-270517	19910924
	JP 3027452	B2	20000404		
	CA 2052323	A1	19920329	CA 1991-2052323	19910926
	CA 2052323	C	20010417		
	FI 9104564	A	19920329	FI 1991-4564	19910927
	FI 104046	B1	19991115		
	HU 58529	A2	19920330	HU 1991-3103	19910927
	HU 211210	B	19951128		
	NO 9103812	A	19920330	NO 1991-3812	19910927
	NO 300759	B1	19970721		
	AU 9184833	A	19920402	AU 1991-84833	19910927
	AU 634663	B2	19930225		
	CN 1060294	A	19920415	CN 1991-109424	19910927
	CN 1034054	C	19970219		
	ZA 9107771	A	19920624	ZA 1991-7771	19910927
	PL 169926	B1	19960930	PL 1991-291855	19910927
	SK 280112	B6	19990806	SK 1991-2969	19910927
	KR 217317	B1	19991001	KR 1991-16912	19910927
	CZ 285650	B6	19991013	CZ 1991-2969	19910927
	US 5306492	A	19940426	US 1992-921678	19920730
PRAI	US 1990-590649	A	19900928		

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

L4 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2009 ACS on STN
TI GLC-MS of N-(1-deoxyalditol-1-yl)octadecylamine derivatives in the analysis of methanolysates of neoglycolipids obtained by reductive amination
AB Hydrophobic conjugates of a series of aldoses have been prepared by reductive amination with octadecylamine and sodium cyanoborohydride, as model compds. for the anal. of reductively aminated oligosaccharides derived from capsular polysaccharides of Streptococcus pneumoniae. In the context of the methanolysis procedure for sugar anal., GLC and GLC-MS studies were carried out on the N-(1-deoxyalditol-1-yl)octadecylamine derivs. obtained after treatment with methanolic HCl, and subsequent N-acetylation and trimethylsilylation.
AN 1989:420786 HCAPLUS <<LOGINID::20090904>>
DN 111:20786
OREF 111:3590h,3591a
TI GLC-MS of N-(1-deoxyalditol-1-yl)octadecylamine derivatives in the analysis of methanolysates of neoglycolipids obtained by reductive amination
AU Van Dam, Jan E. G.; Maas, Augustinus A. M.; Kamerling, Johannis P.; Vliegenthart, Johannes, F. G.
CS Dep. Bio-Org. Chem., Utrecht Univ., Utrecht, NL-3508 TB, Neth.
SO Carbohydrate Research (1989), 187(1), 25-34
CODEN: CRBRAT; ISSN: 0008-6215
DT Journal
LA English
OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L4 ANSWER 8 OF 9 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Immunogenic conjugates comprising the reductive amination product of bacterial polysaccharide capsule fragments and bacterial toxins or toxoids, especially for human infants
AB Immunogenic conjugates are the reductive amination products of an immunogenic bacterial capsule fragments and a bacterial toxin or toxoid. The conjugates are prepared and used as vaccines for young mammals, including humans, especially infants. The capsular polymer fragment prior to conjugation has ≥1 aldehyde group at each end of the fragment; the final conjugate made with the capsular polymers has a lattice or network structure, and provides extremely high levels of anticapsular polymer antibodies in infants. The capsular polymer of Haemophilus influenzae type b (PRP) Na salt was cleaved with acid and fragments containing 15-34 ribose units were treated with CRM197 (diphtheria toxin analog) in the presence of NaBH3CN to give the PRP-CRM197 conjugate (I) as a multimol. aggregate. In infants from 12-27 mo, the injection of I led to enhanced formation of anti-PRP antibodies as well as antidiphtheria toxoid antibodies.
AN 1988:156458 HCAPLUS <<LOGINID::20090904>>
DN 108:156458
OREF 108:25600h,25601a
TI Immunogenic conjugates comprising the reductive amination product of bacterial polysaccharide capsule fragments and bacterial toxins or toxoids, especially for human infants
IN Anderson, Porter W.; Eby, Ronald John
PA Praxis Biologics, Inc., USA
SO Eur. Pat. Appl., 58 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 245045	A2	19871111	EP 1987-303928	19870501
	EP 245045	A3	19890426		
	EP 245045	B1	19931103		
	R: AT, BE, CH, DE, ES, FR, GB, IT, LI, LU, NL, SE				
	US 4902506	A	19900220	US 1986-859975	19860505
	CA 1276109	C	19901113	CA 1987-536090	19870430
	WO 8706838	A1	19871119	WO 1987-US1020	19870501
	W: AU, DK, JP				
	AU 8773935	A	19871201	AU 1987-73935	19870501
	AU 601742	B2	19900920		
	JP 01500036	T	19890112	JP 1987-502838	19870501
	JP 2559438	B2	19961204		
	AT 96676	T	19931115	AT 1987-303928	19870501
	ES 2059372	T3	19941116	ES 1987-303928	19870501
	JP 08283282	A	19961029	JP 1996-22882	19870501
	DK 8800025	A	19880105	DK 1988-25	19880105
	DK 175489	B1	20041108		
PRAI	US 1986-859975	A	19860505		
	US 1981-298102	B2	19810831		
	US 1983-511048	A2	19830705		
	EP 1987-303928	A	19870501		
	JP 1987-502838	A3	19870501		
	WO 1987-US1020	A	19870501		

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OSC.G 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)

L4 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Immunogenic conjugates for vaccines against childhood diseases.

AB An immunogenic conjugate comprises the reductive amination product of an immunogenic capsular polymer fragment of 10-30 monomeric units and a reducing end. The fragment is derived from the capsular polymer of a Streptococcus pneumoniae or Haemophilus influenzae bacterium and a bacterial toxin or toxoid. A vaccine containing the conjugates allows active immunization of young mammals against systemic bacterial infections. An immunogenic conjugate comprising diphtheria toxin protein CRM197 and H. influenzae capsular polysaccharide PRPvs fragment (preparation given) was used to immunize children of age 1-2 yr via s.c. injection of a vaccine containing 25mg conjugate in saline (2-3 vaccinations at ≥1 mo. intervals). No toxic reactions were observed, and higher antibody titers were observed with the CRM carrier than without and with secondary vaccination.
AN 1987:561671 HCAPLUS <<LOGINID::20090904>>
DN 107:161671
OREF 107:25889a,25892a
TI Immunogenic conjugates for vaccines against childhood diseases.
IN Anderson, Porter W.
PA USA
SO U.S., 11 pp. Cont.-in-part of U.S. Ser. No. 298,102, abandoned.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4673574	A	19870616	US 1983-511048	19830705
	US 4808700	A	19890228	US 1984-639293	19840810
	US 4762713	A	19880809	US 1985-732200	19850508
	US 4761283	A	19880802	US 1986-845731	19860328
	US 4902506	A	19900220	US 1986-859975	19860505
	US 5097020	A	19920317	US 1989-423081	19891018
	US 5360897	A	19941101	US 1992-819305	19920109
PRAI	US 1981-298102	A2	19810831		
	US 1983-511048	A2	19830705		
	US 1984-628873	A2	19840709		
	US 1986-859975	A1	19860505		
	US 1989-423081	A1	19891018		

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OSC.G 23 THERE ARE 23 CAPLUS RECORDS THAT CITE THIS RECORD (25 CITINGS)
RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his

(FILE 'HOME' ENTERED AT 13:02:27 ON 04 SEP 2009)

FILE 'HCAPLUS' ENTERED AT 13:02:38 ON 04 SEP 2009
L1 16343 S PNEUMOCOCCUS OR (STREPTOCOCCUS PNEUMONIAE)
L2 3497 S CAPSULAR POLYSACCHARIDE
L3 6686 S (REDUCTIVE AMINATION) OR (REDUCTIVELY AMINATED)
L4 9 S L1 AND L2 AND L3

=> log hold

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	32.70	32.92

```
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)        SINCE FILE      TOTAL
                                                     ENTRY    SESSION
CA SUBSCRIBER PRICE                                  -7.38      -7.38

 SESSION WILL BE HELD FOR 120 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 13:03:37 ON 04 SEP 2009

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LOGINID:SSPTAEXO1623

PASSWORD:
  * * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * * *
SESSION RESUMED IN FILE 'HCAPLUS' AT 13:29:38 ON 04 SEP 2009
FILE 'HCAPLUS' ENTERED AT 13:29:38 ON 04 SEP 2009
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COST IN U.S. DOLLARS                              SINCE FILE      TOTAL
                                                     ENTRY    SESSION
FULL ESTIMATED COST                                  32.70      32.92

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)        SINCE FILE      TOTAL
                                                     ENTRY    SESSION
CA SUBSCRIBER PRICE                                  -7.38      -7.38

=> s l2 and l3
L5          30 L2 AND L3

=> s l5 not l4
L6          21 L5 NOT L4

=> s l6 and (py<2004 OR ay<2004 OR pry<2004)
      24036162 PY<2004
       4804039 AY<2004
       4277040 PRY<2004
L7          17 L6 AND (PY<2004 OR AY<2004 OR PRY<2004)

=> s ketone
L8      166587 KETONE

=> s l7 and l8
L9           0 L7 AND L8

=> d l7 1-17 ti abs bib

L7   ANSWER 1 OF 17  HCAPLUS  COPYRIGHT 2009 ACS on STN
TI   Modified saccharides and their protein conjugates
AB   Saccharide-protein conjugates having a new type of linker are described.
     The conjugates comprising the new linker are prepared from modified capsular
     saccharides.  The linker is especially useful for preparing conjugates of
Neisseria
     meningitidis serogroup A saccharide.  Conjugates having this new linker
     have improved immunogenicity compared to other types of conjugates.  A
     process for modifying a capsular saccharide comprises the steps of: (a)
     providing a capsular saccharide having a hydroxy group; (b) reacting the
     hydroxy group with a bifunctional reagent, e.g., 1,1'-carbonyldiimidazole
```

or carbonyldi-1,2,4-triazole in an organic solvent; and (c) reacting the product of step (b) with an amino compound, such as 1-amino-4,5-pentanediol. The product of step (c) is cleaved with periodate, thereby providing an aldehyde compound suitable for linking to a protein by a reductive amination reaction using NaBH3CN. A pharmaceutical composition comprising a saccharide-protein conjugate, an adjuvant, and a carrier for preventing or treating diseases, such as bacterial meningitis, is also described.

AN 2004:203711 HCAPLUS <<LOGINID::20090904>>
DN 140:240996
TI Modified saccharides and their protein conjugates
IN Giannozzi, Aldo; Averani, Giovanni; Norelli, Francesco; Costantino, Paolo
PA Chiron S.r.l., Italy
SO PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	WO 2004019992	A1	20040311	WO 2003-IB4194	20030901	<--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
	CA 2497167	A1	20040311	CA 2003-2497167	20030901	<--
	AU 2003260921	A1	20040319	AU 2003-260921	20030901	<--
	AU 2003260921	B2	20080306			
	EP 1534342	A1	20050601	EP 2003-791149	20030901	<--
	EP 1534342	B1	20060308			
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK					
	CN 1688343	A	20051026	CN 2003-823724	20030901	<--
	BR 2003014089	A	20051116	BR 2003-14089	20030901	<--
	AT 319481	T	20060315	AT 2003-791149	20030901	<--
	JP 2006511465	T	20060406	JP 2004-532625	20030901	<--
	NZ 538703	A	20060929	NZ 2003-538703	20030901	<--
	ES 2260682	T3	20061101	ES 2003-791149	20030901	<--
	MX 2005002315	A	20050608	MX 2005-2315	20050228	<--
	US 20060263390	A1	20061123	US 2005-526124	20050228	<--
PRAI	GB 2002-20198	A	20020830	<--		
	WO 2003-IB4194	W	20030901	<--		

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 17 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Preclinical evaluation of group B streptococcal polysaccharide conjugate vaccines prepared with a modified diphtheria toxin and a recombinant duck hepatitis B core antigen
AB An effective vaccine against group B streptococcal (GBS) disease will undoubtedly include capsular polysaccharides (CPSs) from each of the five serotypes prevalent in the United States individually coupled to immunogenic proteins. This formulation may require the use of two or more

different protein carriers. We preclinically examined the potential of two proteins to serve as effective carriers for GBS type III CPS. Recombinant duck hepatitis B core antigen (rdHBcAg), a particulate protein of viral origin, and a newly mutated form of diphtheria toxin (DTm) were covalently and directly coupled to purified type III CPS by reductive amination. Seventy-seven of 79 (97%) newborn pups born to mouse dams actively vaccinated with type III CPS-rdHBcAg conjugate survived GBS type III challenge, whereas none of the pups born to dams that received an uncoupled mixture of type III CPS and rdHBcAg or saline survived. Likewise, 64 (98%) of 65 pups born to dams vaccinated with type III CPS-DTm conjugate survived challenge, in sharp contrast to no survivors among the pups born to dams vaccinated with an uncoupled mixture of type III CPS and DTm. The presence of type III CPS-specific IgG in serum from dams correlated with pup survival in groups that received a conjugate vaccine, and this serum was opsonically active in vitro against GBS type III. In addition, carrier-specific IgG was also measured in serum from vaccinated mice. These data suggest that the rdHBcAg and DTm may be effective carriers for GBS CPSs.

AN 2001:771468 HCAPLUS <<LOGINID::20090904>>
DN 136:384559
TI Preclinical evaluation of group B streptococcal polysaccharide conjugate vaccines prepared with a modified diphtheria toxin and a recombinant duck hepatitis B core antigen
AU Paoletti, Lawrence C.; Peterson, Darrell L.; Legmann, Rachel; Collier, R. John
CS Channing Laboratory, Department of Medicine, Brigham and Women's Hospital, Boston, MA, 02115, USA
SO Vaccine (2001), 20(3-4), 370-376
CODEN: VACCDE; ISSN: 0264-410X
PB Elsevier Science Ltd.
DT Journal
LA English
OSC.G 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)
RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 17 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Formulation and characterization of Bordetella pertussis fimbriae as novel carrier proteins for Hib conjugate vaccines
AB Haemophilus influenzae type b (Hib) capsular polysaccharide (polyribosylribitol phosphate, PRP) is the active component of conjugate vaccines that have proven successful in preventing invasive Hib disease. Conjugation of PRP to a protein carrier greatly improves its immunogenicity providing protection in infants and subsequent antibody maturation upon boosting. In this study, fimbriae isolated from Bordetella pertussis have been assessed as novel carrier proteins. These proteins are components of some acellular pertussis vaccines and clin. trials have indicated that fimbriae could be important protective antigens against whooping cough. Fimbriae (Fim2 and Fim3) purified from B. pertussis were dissociated in 6 M guanidine hydrochloride, pH 10.5, to produce proteins of defined size and to facilitate the production and characterization of the conjugates. Both carbodiimide-mediated coupling and reductive amination were used to conjugate PRP to dissociated fimbriae. Efficiency of conjugation was determined by size exclusion chromatog. followed by protein and polysaccharide anal. of fractionated components. Immunization of rabbits with dissociated fimbriae–PRP conjugates (D.fim–PRP) produced high anti-fimbrial and anti-PRP IgG titers. Use of a D.fim–PRP conjugate could protect against Hib disease and may also augment protection against B. pertussis.
AN 2001:334007 HCAPLUS <<LOGINID::20090904>>

DN 136:221575
TI Formulation and characterization of Bordetella pertussis fimbriae as novel carrier proteins for Hib conjugate vaccines
AU Crowley-Luke, A.; Reddin, K.; Gorringe, A.; Hudson, M. J.; Robinson, A.
CS Centre for Applied Microbiology and Research, Salisbury, SP4 0JG, UK
SO Vaccine (2001), 19(25-26), 3399-3407
CODEN: VACCDE; ISSN: 0264-410X
PB Elsevier Science Ltd.
DT Journal
LA English
OSC.G 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)
RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 17 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Novel meningococcal semi-synthetic polysaccharide-protein conjugate vaccines
AB The success of capsular polysaccharide vaccines in adults and particularly in children remains very limited. These thymus independent (TI) antigens are generally not effective in infants. Covalent bonding of these carbohydrate antigens to thymus dependent (TD) proteins can transform them into TD antigens. Haemophilus influenzae type b (Hib) conjugate vaccines to prevent meningitis have been the first of these semi-synthetic vaccines to be licensed. Three meningococcal C conjugates to prevent meningitis have been licensed in the U.K., and a pneumococcal conjugate to prevent invasive pneumonia in infants is now licensed in the U.S. Novel procedures have been developed for the preparation of the carbohydrate antigens to be conjugated, as well as selective chemical manipulations of the polysaccharides and efficient coupling chemistries like reductive amination. In addition, alternative carrier proteins, using recombinant technologies, have been utilized to overcome potential overloading of the immune system with conventional carriers, thereby providing better and safer immunogens. Using state of the art modern technologies, a better understanding of the chemical nature of the protective epitopes on the polysaccharide has provided elements for a rational design of these conjugate mols. As a result, following chemical manipulation of the meningococcal C polysaccharide through its de-O-acetylation, new protective epitopes were created that contributed to the superior immnunogenicity of NeisVac-C- in clin. trials. For group B meningococci, newly defined conformational protective epitopes, with the N-propionylation of the polysaccharide and the introduction of a new carrier protein (rPorB) as an immunomodulator, resulted in a novel vaccine candidate to prevent meningococcal B disease. The success of these conjugate vaccines will certainly continue to rise with a better understanding of this new field, which has now become a real technol. platform.
AN 2001:197351 HCAPLUS <<LOGINID::20090904>>
TI Novel meningococcal semi-synthetic polysaccharide-protein conjugate vaccines
AU Michon, Francis; Blake, Milan S.; Fusco, Peter C.
CS Baxter Healthcare Corporation, Columbia, MD, 21046, USA
SO Abstracts of Papers, 221st ACS National Meeting, San Diego, CA, United States, April 1-5, 2001 (2001) BIOT-044
CODEN: 69FZD4
PB American Chemical Society
DT Journal; Meeting Abstract
LA English

L7 ANSWER 5 OF 17 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Group B Streptococcus capsular polysaccharide-cholera toxin B subunit conjugate vaccines prepared by different methods for

intranasal immunization

AB Group B Streptococcus (GBS) type III capsular polysaccharide (CPS III) was conjugated to recombinant cholera toxin B subunit (rCTB) using 3 different methods which employed (1) cystamine and N-succinimidyl-3-(2-pyridyldithio)propionate (SPDP), (2) carbodiimide with adipic acid dihydrazide (ADH) as a spacer, or (3) reductive amination (RA). The CPS III-rCTB conjugates were divided into large- and small-mol.-weight (Mr) fractions, and the immunogenicities of the different prepns. after intranasal (i.n.) immunization were studied in mice. Both large- and small-Mr conjugates of CPS III-rCTBRA or CPS III-rCTBADH induced high, almost comparable levels of CPS-specific IgG in serum, lungs, and vagina that were generally superior to those obtained with CPS III-rCTBSPDP conjugates or a CPS III and rCTB mixture However, the smaller-Mr conjugates of CPS III-rCTBRA or CPS III-rCTBADH in most cases elicited a lower anti-CPS IgA immune response than the large-Mr conjugates, and the highest anti-CPS IgA titers in both tissues and serum were obtained with the large-Mr CPS III-rCTBRA conjugate. Serum IgG anti-CPS titers induced by the CPS III-rCTBRA conjugate had high levels of specific IgG1, IgG2a, IgG2b, and IgG3 antibodies. Based on the effectiveness of RA for coupling CPS III to rCTB, RA was also tested for conjugating GBS CPS Ia with rCTB. As for the CPS III-rCTB conjugates, the immunogenicity of CPS Ia was greatly increased by conjugation to rCTB. Intranasal immunization with a combination of CPS Ia-rCTB and CPS III-rCTB conjugates was shown to induce anti-CPS Ia and III immune responses in serum and lungs that were fully comparable with the responses to immunization with the monovalent CPS Ia-rCTB or CPS III-rCTB conjugates. Thus, the GBS CPS III-rCTB and CPS Ia-rCTB conjugates prepared by the RA method may be used in bivalent and possibly also in multivalent mucosal GBS conjugate vaccines.

AN 2001:20258 HCAPLUS <<LOGINID::20090904>>

DN 134:177010

TI Group B Streptococcus capsular polysaccharide-cholera toxin B subunit conjugate vaccines prepared by different methods for intranasal immunization

AU Shen, Xuzhuang; Lagergard, Teresa; Yang, Yonghong; Lindblad, Marianne; Fredriksson, Margareta; Holmgren, Jan

CS Department of Medical Microbiology and Immunology, Goteborg University, Goteborg, S-413 46, Swed.

SO Infection and Immunity (2001), 69(1), 297-306
CODEN: INFIBR; ISSN: 0019-9567

PB American Society for Microbiology

DT Journal

LA English

OSC.G 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)

RE.CNT 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 6 OF 17 HCAPLUS COPYRIGHT 2009 ACS on STN

TI Preparation and preclinical evaluation of experimental group B streptococcus type III polysaccharide-cholera toxin B subunit conjugate vaccine for intranasal immunization

AB Streptococcus group B (GBS) is usually carried asymptomatically in the vaginal tract of women and can be transferred to the newborn during parturition. Serum antibodies to the capsular polysaccharide (CPS) can prevent invasive diseases, whereas immunity acting at the mucosal surface may be more important to inhibit the mucosal colonization of GBS and thus the risk of infection for the newborn. We prepared different GBS type III CPS-protein conjugate vaccines and evaluated their systemic and mucosal immunogenicity in mice. GBS type III CPS was conjugated to tetanus toxoid (TT) or recombinant cholera toxin B subunit (rCTB) either directly or to rCTB indirectly via TT. The

conjugation was performed by different methods: (1) CPS was coupled to TT with 1-ethyl-3 (3-dimethylaminopropyl)-carbodiimide (EDAC), using adipic acid dihydrazide (ADH) as a spacer; (2) CPS was conjugated with rCTB using reductive amination; or, (3) N-succinimidyl 3-(2-pyridyldithio) propionate (SPDP) was used to bind rCTB to the TT of the CPS-TT conjugate. Mice were immunized with these conjugates or purified CPS by s.c. and intranasal (i.n.) routes. Antibodies to GBS III in serum, lungs and vagina were measured with ELISA. All of the CPS-protein conjugates were superior to unconjugated CPS in eliciting CPS-specific immune responses in serum and mucosal tissue exts. The conjugates, when administered s.c., induced only IgG responses in serum, lung and vagina, while i.n. vaccination also elicited IgA responses in the lungs and vagina. The CPS-TT conjugate administered i.n. induced a strong serum IgG, but only a weak mucosal IgA response, while the CPS-rCTB conjugate elicited high IgG as well as IgA antibodies in the lungs after i.n. immunization. GBS III CPS-TT conjugated with rCTB produced a strong systemic and local anti-CPSIII response after i.n. administration. Co-administration of CT as adjuvant enhanced the anti-CPS systemic and mucosal immune responses further after i.n. administration with the CPS conjugates. These findings indicate that: (i) i.n. immunization with GBS CPS-protein conjugates was more effective than s.c. immunization for stimulating serum as well as mucosal immune responses; (ii) rCTB as a carrier protein for GBS III CPS could markedly improve the mucosal immune response; and (iii) the exptl. GBS type III CPS conjugates containing rCTB should be investigated as mucosal vaccine to prevent GBS infection in humans.

AN 2000:874738 HCAPLUS <<LOGINID::20090904>>
DN 135:136084
TI Preparation and preclinical evaluation of experimental group B streptococcus type III polysaccharide-cholera toxin B subunit conjugate vaccine for intranasal immunization
AU Shen, X.; Lagergard, T.; Yang, Y.; Lindblad, M.; Fredriksson, M.; Holmgren, J.
CS Department of Medical Microbiology and Immunology, Goteborg University, Goteborg, S-413 46, Swed.
SO Vaccine (2000), 19(7-8), 850-861
CODEN: VACCDE; ISSN: 0264-410X
PB Elsevier Science Ltd.
DT Journal
LA English
OSC.G 10 THERE ARE 10 CAPLUS RECORDS THAT CITE THIS RECORD (10 CITINGS)
RE.CNT 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 7 OF 17 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Use of capsular polysaccharide-tetanus toxoid conjugate vaccine for type II group B Streptococcus in healthy women
AB An estimated 15% of invasive group B streptococcal (GBS) disease is caused by type II capsular polysaccharide (II CPS). In developing a pentavalent vaccine for the prevention of GBS infections, individual GBS CPSs have been coupled to tetanus toxoid (TT) to prepare vaccines with enhanced immunogenicity. Type II GBS (GBS II) vaccine was created by direct, covalent coupling of II CPS to TT by reductive amination. In 2 clin. trials, 75 healthy nonpregnant women 18-45 yr old were randomized to receive II CPS-TT (II-TT) conjugate (dose range, 3.6-57 μg of CPS component) or uncoupled II CPS vaccine. Both vaccines were well tolerated. II CPS-specific IgG serum concns. (as well as IgM and IgA) peaked 2 wk after immunization, being higher in recipients of conjugated vaccine than in recipients of uncoupled CPS. Immunol. responses to conjugate were dose dependent and correlated with opsonophagocytosis in vitro. These results support inclusion of II-TT

conjugate when preparing a multivalent GBS vaccine.
AN 2000:738304 HCAPLUS <<LOGINID::20090904>>
DN 134:279231
TI Use of capsular polysaccharide-tetanus toxoid conjugate vaccine for type II group B Streptococcus in healthy women
AU Baker, Carol J.; Paoletti, Lawrence C.; Rench, Marcia A.; Guttormsen, Hilde-Kari; Carey, Vincent J.; Hickman, Melissa E.; Kasper, Dennis L.
CS Section of Infectious Diseases, Departments of Pediatrics and Molecular Virology and Microbiology, Baylor College of Medicine, Houston, TX, 77030, USA
SO Journal of Infectious Diseases (2000), 182(4), 1129-1138
CODEN: JIDIAQ; ISSN: 0022-1899
PB University of Chicago Press
DT Journal
LA English
OSC.G 29 THERE ARE 29 CAPLUS RECORDS THAT CITE THIS RECORD (30 CITINGS)
RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 8 OF 17 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Group B streptococcal carbohydrates: Their role in virulence and as vaccines.
AB Group B Streptococcus (GBS) is a major cause of neonatal disease in the United States. GBS express two distinct surface sugars: the group B carbohydrate and the type -specific capsular polysaccharide (CPS). Although the former is common to all GBS, protective antibody targets predominately the CPS antigen. Of the nine structurally and antigenically unique GBS serotypes, five (Ia, Ib, II, and V) are prevalent in the U.S. Population. The CPSs of these serotypes are comprised of oligosaccharide repeating units containing glucose, galactose, N-acetylglucosamine, and N-acetylneuraminic acid. The immunogenicity of these otherwise weak antigens has been improved by coupling them directly to carrier proteins by reductive amination. GBS CPS-protein conjugate vaccines elicit in humans high levels of functionally active and protective antibody. An understanding of the chemical, biol. and immunol. of GBS CPS antigens has yielded a new generation of vaccines against GBS disease.
AN 1999:539754 HCAPLUS <<LOGINID::20090904>>
TI Group B streptococcal carbohydrates: Their role in virulence and as vaccines.
AU Paoletti, Lawrence, C.
CS Department of Medicine, Channing Laboratory, Harvard Medical School, Boston, MA, 02115, USA
SO Book of Abstracts, 218th ACS National Meeting, New Orleans, Aug. 22-26 (1999), CARB-021 Publisher: American Chemical Society, Washington, D. C.
CODEN: 67ZJA5
DT Conference; Meeting Abstract
LA English

L7 ANSWER 9 OF 17 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Alpha C protein as a carrier for type III capsular polysaccharide and as a protective protein in group B streptococcal vaccines
AB The alpha C protein, a protective surface protein of group B streptococci (GBS), is present in most non-type III GBS strains. Conjugate vaccines composed of the alpha C protein and type III capsular polysaccharide (CPS) might be protective against most GBS infections. In this study, the type III CPS was covalently coupled to full-length, nine-repeat alpha C protein (resulting in III-α9r conjugate vaccine) or to two-repeat alpha C protein (resulting in

III-α2r conjugate vaccine) by reductive amination . Initial expts. with the III-α9r vaccine showed that it was poorly immunogenic in mice with respect to both vaccine antigens and was suboptimally efficacious in providing protection in mice against challenge with GBS. Therefore, modified vaccination protocols were used with the III-α2r vaccine. Female mice were immunized three times with 0.5, 5, or 20 μg of the III-α2r vaccine with an aluminum hydroxide adjuvant and bred. Ninety-five percent of neonatal mice born to dams immunized with the III-α2r vaccine survived challenge with GBS expressing type III CPS, and 60% survived challenge with GBS expressing wild-type (nine-repeat) alpha C protein; 18 and 17%, resp., of mice in the neg. control groups survived (P, <0.0001). These protection levels did not differ significantly from those obtained with the type III CPS-tetanus toxoid conjugate vaccine and the unconjugated two-repeat alpha C protein, which protected 98 and 58% of neonates from infection with GBS expressing type III CPS or the alpha C protein, resp. Thus, the two-repeat alpha C protein in the vaccine was immunogenic and simultaneously enhanced the immunogenicity of type III CPS. III-α vaccines may be alternatives to GBS polysaccharide-tetanus toxoid vaccines, eliciting addnl. antibodies protective against GBS infection.

AN 1999:291215 HCAPLUS <<LOGINID::20090904>>
DN 131:72432
TI Alpha C protein as a carrier for type III capsular polysaccharide and as a protective protein in group B streptococcal vaccines
AU Gravekamp, Claudia; Kasper, Dennis L.; Paoletti, Lawrence C.; Madoff, Lawrence C.
CS Channing Laboratory, Boston, MA, 02115, USA
SO Infection and Immunity (1999), 67(5), 2491-2496
CODEN: INFIBR; ISSN: 0019-9567
PB American Society for Microbiology
DT Journal
LA English
OSC.G 34 THERE ARE 34 CAPLUS RECORDS THAT CITE THIS RECORD (34 CITINGS)
RE.CNT 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 10 OF 17 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Structural properties of group B streptococcal type III polysaccharide conjugate vaccines that influence immunogenicity and efficacy
AB In this study, we tested the hypothesis that the immunogenicity and protective efficacy of polysaccharide-protein conjugate vaccines are influenced by three variables: (i) mol. size of the conjugate, (ii) mol. size of the polysaccharide used for conjugation, and (iii) extent of polysaccharide-to-protein crosslinking. Type III group B Streptococcus capsular polysaccharide was linked by reductive amination at multiple sites to tetanus toxoid to create a polysaccharide-protein conjugate (III-TT). A single lot of III-TT was fractionated into small, medium, and large Mr pools. Whereas all three conferred protection in a maternal immunization-neonatal challenge model in mice, the smallest Mr conjugate evoked less polysaccharide-specific IgG than the two larger Mr conjugates. To test whether the mol. size of the polysaccharide used for conjugation also affected the immunogenicity of the conjugate, vaccines were synthesized using capsular polysaccharides with Mrs of 38,000, 105,000, and 349,000. Polysaccharide-specific IgG responses in mice increased with the Mr of the polysaccharides, and protective efficacy was lower for the smallest polysaccharide conjugate compared to the other two vaccines. Immunogenicity testing of a series of vaccines prepared with different degrees of polysaccharide-to-protein crosslinking demonstrated higher polysaccharide-specific antibody responses as the extent of crosslinking increased. However, opsonic

activity was greatest in mouse antiserum raised to a moderately cross-linked conjugate, suggesting that some antibodies evoked by highly cross-linked conjugates were directed to a nonprotective epitope. We conclude that conjugate size, polysaccharide size, and degree of polysaccharide-protein crosslinking influence the immunogenicity and protective efficacy of III-TT conjugate vaccines.

AN 1998:296952 HCAPLUS <<LOGINID::20090904>>
DN 129:53190
OREF 129:11083a
TI Structural properties of group B streptococcal type III polysaccharide conjugate vaccines that influence immunogenicity and efficacy
AU Wessels, Michael R.; Paoletti, Lawrence C.; Guttormsen, Hilde-Kari; Michon, Francis; D'ambra, Anello J.; Kasper, Dennis L.
CS Channing Laboratory, Brigham and Women's Hospital, Boston, MA, 02115, USA
SO Infection and Immunity (1998), 66(5), 2186-2192
CODEN: INFIBR; ISSN: 0019-9567
PB American Society for Microbiology
DT Journal
LA English
OSC.G 26 THERE ARE 26 CAPLUS RECORDS THAT CITE THIS RECORD (26 CITINGS)
RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 11 OF 17 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Meningococcal vaccine development: a novel approach
AB Neisseria meningitidis is a major world-wide cause of meningitis. Effective capsular polysaccharide (CPS) vaccines, that elicit CPS-specific bactericidal (BC) antibodies, were previously developed and licensed to protect against meningococcal disease. However, due to their T-cell independent character, CPS vaccines are useless in infants and do not provide immunol. memory or long-lasting protection in adults. CPS-protein conjugate vaccines are being developed to improve and broaden vaccine efficacy by creating T-cell dependent antigens. However, group B meningococci (GBM) are responsible for nearly half of meningococcal disease and possess a CPS, composed of polysialic acid, that is poorly immunogenic. N-propionyl (NPr) modification of the GBM polysaccharide (GBMP) has enhanced its immunogenicity, but BC antibodies are not induced at high levels, even when conjugated to conventional protein carriers, unless adjuvants stronger than aluminum hydroxide are used. We have chosen to couple the NPr-GBMP by reductive amination to a recombinant GBM class 3 porin (rProB), which we have shown to modulate the immune response in animals towards the production of CPS-specific BC antibodies. We have also combined this conjugate with similar CPS-rProB conjugates for groups A and C meningococci to form a trivalent A/B/C conjugate vaccine. This trivalent meningococcal vaccine has been shown to be safe and highly immunogenic in mice and non human primates, generating CPS-specific BC antibodies for each of the 3 major serogroups, which should provide world-wide protection against meningococcal disease.

AN 1998:97206 HCAPLUS <<LOGINID::20090904>>
DN 128:203874
OREF 128:40311a,40314a
TI Meningococcal vaccine development: a novel approach
AU Fusco, Peter C.; Blake, M. S.; Michon, Francis
CS North American Vaccine, Inc., Beltsville, MD, 20705, USA
SO Expert Opinion on Investigational Drugs (1998), 7(2), 245-252
CODEN: EOIDER; ISSN: 0967-8298
PB Ashley Publications
DT Journal
LA English
OSC.G 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

RE.CNT 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 12 OF 17 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Maternal immunization of mice with group B streptococcal type III polysaccharide-beta C protein conjugate elicits protective antibody to multiple serotypes
AB Group B streptococcal infection is major cause of neonatal mortality. Antibody to the capsular polysaccharide protects against invasive neonatal disease, but immunization with capsular polysaccharides fails to elicit protective antibody in many recipients. Conjugation of the polysaccharide to tetanus toxoid has been shown to increase immune response to the polysaccharide. In animal models, C proteins of group B streptococci are also protective determinants. The authors examined the ability of the beta C protein to serve in the dual role of carrier for the polysaccharide and protective immunogen. Type III polysaccharide was covalently coupled to beta C protein by reductive amination. Immunization of rabbits with the polysaccharide-protein conjugate elicited high titers of antibody to both components, and the serum induced opsonophagocytic killing of type III, Ia/C, and Ib/C strains of group B streptococci. Female mice were immunized with the conjugate vaccine and then bred; 93% of neonatal pups born to these dams vaccinated with conjugate survived type III group B streptococcal challenge and 76% survived type Ia/C challenge, compared with 3% and 8% survival, resp., in controls. The beta C protein acted as an effective carrier for the type III polysaccharide while simultaneously inducing protective immunity against beta C protein-containing strains of group B streptococci.
AN 1994:531894 HCAPLUS <<LOGINID::20090904>>
DN 121:131894
OREF 121:23825a,23828a
TI Maternal immunization of mice with group B streptococcal type III polysaccharide-beta C protein conjugate elicits protective antibody to multiple serotypes
AU Madoff, Lawrence C.; Paoletti, Lawrence C.; Tai, Joseph Y.; Kasper, Dennis L.
CS Channing Laboratory, Brigham and Women's Hospital, Boston, MA, 02115, USA
SO Journal of Clinical Investigation (1994), 94(1), 286-92
CODEN: JCINAO; ISSN: 0021-9738
DT Journal
LA English
OSC.G 43 THERE ARE 43 CAPLUS RECORDS THAT CITE THIS RECORD (43 CITINGS)

L7 ANSWER 13 OF 17 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Group B Streptococcus type II polysaccharide-tetanus toxoid conjugate vaccine
AB Group B streptococci (GBS) are the most common cause of bacterial sepsis and meningitis in neonates in the United States. Although the capsular polysaccharide of GBS is an important virulence factor, it is variably immunogenic in humans. The authors increased the immunogenicity of GBS type II polysaccharide by coupling it to tetanus toxoid (TT). Like other GBS capsular polysaccharides, the type II polysaccharide has side chains terminating in sialic acid. Controlled periodate oxidation of native II polysaccharide resulted in the conversion of 7% of sialic acid residues to an analog of sialic acid, 5-acetamido-3,5-dideoxy-D-galactosyloctulosonic acid. TT was conjugated to free aldehyde groups created on the oxidized sialic acid residues by reductive amination. Serum from rabbits vaccinated with type II-TT conjugate (II-TT) vaccine contained antibodies specific to type II polysaccharide as well as to TT, whereas rabbits vaccinated with uncoupled native type II polysaccharide failed to produce a type-specific

antibody response. Antibodies elicited by II-TT vaccine were serotype specific and mediated phagocytosis and killing in vitro of type II GBS by human peripheral blood leukocytes. Serum from rabbits vaccinated with II-TT vaccine provided 100% protection in a mouse model of GBS type II infection. Antibodies induced by II-TT vaccine were specific for the native but not desialylated type II polysaccharide, suggesting that an important antigenic epitope of II-TT vaccine was dependent on the presence of sialic acid. Therefore, the coupling strategy which selectively modified a portion of the sialic acid residues of type II polysaccharide before coupling the polysaccharide to TT preserved the epitope essential to protective immunity and enhanced the immunogenicity of the polysaccharide.

AN 1993:78831 HCAPLUS <<LOGINID::20090904>>
DN 118:78831
OREF 118:13815a,13818a
TI Group B Streptococcus type II polysaccharide-tetanus toxoid conjugate vaccine
AU Paoletti, Lawrence C.; Wessels, Michael R.; Michon, Francis; DiFabio, Jose; Jennings, Harold J.; Kasper, Dennis L.
CS Channing Lab., Brigham Women's Hosp., Boston, MA, 02115, USA
SO Infection and Immunity (1992), 60(10), 4009-14
CODEN: INFIBR; ISSN: 0019-9567
DT Journal
LA English
OSC.G 20 THERE ARE 20 CAPLUS RECORDS THAT CITE THIS RECORD (20 CITINGS)

L7 ANSWER 14 OF 17 HCAPLUS COPYRIGHT 2009 ACS on STN
TI An oligosaccharide-tetanus toxoid conjugate vaccine against type III group B Streptococcus
AB An oligosaccharide-tetanus toxoid conjugate vaccine was developed against type III group B Streptococcus. Purified group B streptococcal type III capsular polysaccharide was depolymd. by enzymic digestion using endo-β-galactosidase produced by Citrobacter freundii. Following enzymic digestion, oligosaccharides were fractionated by gel filtration chromatog. on Sephadex G-75. An oligosaccharide pool of average mol. weight 14,500 (corresponding to 13.6 repeating units of the type III polysaccharide) was used for conjugation to tetanus toxoid. Tetanus toxoid was covalently coupled via a synthetic spacer mol. to the reducing end of the oligosaccharide by reductive amination. The oligosaccharide-tetanus toxoid conjugate elicited type III-specific anticapsular antibodies (measured in ELISA) in 3 out of 3 rabbits whereas the unconjugated native type III polysaccharide was nonimmunogenic. Antiserum from rabbits vaccinated with the oligosaccharide-protein conjugate protected mice against lethal challenge with live group B streptococci (16 out of 16 mice survived) and opsonized group B streptococci for phagocytosis in vitro. No protection was conferred by preimmune serum nor by serum from rabbits vaccinated with unconjugated native type III polysaccharide. An oligosaccharide-protein conjugate vaccine of this design may prove to be an effective immunogen for protection against group B streptococcal infection in humans. In addition, the approach to vaccine design utilized in these studies will facilitate further definition of the structural parameters that determine immune response to glycoconjugate vaccines.

AN 1991:4512 HCAPLUS <<LOGINID::20090904>>
DN 114:4512
OREF 114:911a,914a
TI An oligosaccharide-tetanus toxoid conjugate vaccine against type III group B Streptococcus
AU Paoletti, Lawrence C.; Kasper, Dennis L.; Michon, Francis; DiFabio, Jose; Holme, Kevin; Jennings, Harold J.; Wessels, Michael R.

CS Channing Lab., Brigham and Women's Hosp., Boston, MA, 02115, USA
SO Journal of Biological Chemistry (1990), 265(30), 18278-83
CODEN: JBCHA3; ISSN: 0021-9258
DT Journal
LA English
OSC.G 22 THERE ARE 22 CAPLUS RECORDS THAT CITE THIS RECORD (22 CITINGS)

L7 ANSWER 15 OF 17 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Immunogenicity in animals of a polysaccharide-protein conjugate vaccine against type III group B Streptococcus
AB The native capsular polysaccharide of type III group B Streptococcus elicits a specific antibody response in only 60% of nonimmune human subjects. To enhance the immunogenicity of this polysaccharide, the type III polysaccharide was coupled to tetanus toxoid. Prior to coupling, aldehyde groups were introduced on the polysaccharide by controlled periodate oxidation, resulting in the conversion of 25% of the sialic acid residues of the polysaccharide to residues of the 8-carbon analog of sialic acid, 5-acetamido-3,5-dideoxy-D-galactosyloctulosonic acid. Tetanus toxoid was conjugated to the polysaccharide by reductive amination, via the free aldehyde groups present on the partially oxidized sialic acid residues. Rabbits vaccinated with the conjugate vaccine produced IgG antibodies that reacted with the native type III group B streptococcal polysaccharide, while rabbits immunized with the unconjugated type III polysaccharide failed to respond. Sera from animals receiving conjugate vaccine opsonized type III group B streptococci for phagocytic killing by human peripheral blood leukocytes, and protected mice against lethal challenge with live type III group B streptococci. The results suggest that this method of conjugation to a carrier protein may be a useful strategy to improve the immunogenicity of the type III group B Streptococcus polysaccharide in human subjects.
AN 1990:629149 HCAPLUS <<LOGINID::20090904>>
DN 113:229149
OREF 113:38645a,38648a
TI Immunogenicity in animals of a polysaccharide-protein conjugate vaccine against type III group B Streptococcus
AU Wessels, Michael R.; Paoletti, Lawrence C.; Kasper, Dennis L.; DiFabio, Jose L.; Michon, Francis; Holme, Kevin; Jennings, Harold J.
CS Channing Lab., Brigham and Women's Hosp., Boston, MA, 02115, USA
SO Journal of Clinical Investigation (1990), 86(5), 1428-33
CODEN: JCINAO; ISSN: 0021-9738
DT Journal
LA English
OSC.G 72 THERE ARE 72 CAPLUS RECORDS THAT CITE THIS RECORD (72 CITINGS)

L7 ANSWER 16 OF 17 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Immunogens consisting of oligosaccharides from the capsule of Haemophilus influenzae type b coupled to diphtheria toxoid or the toxin protein CRM197
AB H. influenzae Type b (Hib) capsular polysaccharide (PRP) was selectively hydrolyzed to reducing oligosaccharides, and the fraction containing 3-10 ribosylribitolphosphate repeating units (VS) was conjugated by reductive amination to diphtheria toxin (DTx), its nontoxic derivative CRM197 (Dcr), or diphtheria toxoid (DTd). Conjugate DTx-VS retained .apprx.1% of native toxicity, which was eliminated by treatment with formalin. Immunization of rabbits with the conjugates elicited antibody (Ab) to PRP and to DTx but not to a model for the linkage determinant. Human adults given single s.c. injections had increases in serum Ab to PRP and in bactericidal activity in vitro; the Ab protected infant rats challenged with Hib. Adults had increases also in Ab to DTd, and these Ab protected rabbits against DTx. A series of 2 injections of the conjugates Dcr-VS and DTd-VS was tested in infants

beginning at 19-23 mo of age. Rises in anti-PRP Ab after the primary resembled the rises after PRP vaccine. In contrast to PRP, the conjugates elicited large rises after the secondary vaccinations and a substantial IgG component. Development of bactericidal activity paralleled the rises in anti-PRP Ab. Secondary rises after Dcr-VS were higher than after DTd-VS. In infants 12-16 mo of age, Dcr-VS (but not DTd-VS) elicited strong primary and secondary Ab responses that included IgG and bactericidal activity. Both conjugates produced consistent rises in Ab to DTd.

AN 1985:486144 HCAPLUS <<LOGINID::20090904>>
DN 103:86144
OREF 103:13833a,13836a
TI Immunogens consisting of oligosaccharides from the capsule of Haemophilus influenzae type b coupled to diphtheria toxoid or the toxin protein CRM197
AU Anderson, Porter; Pichichero, Micael E.; Insel, Richard A.
CS Med. Cent., Univ. Rochester, Rochester, NY, 14642, USA
SO Journal of Clinical Investigation (1985), 76(1), 52-9
CODEN: JCINAO; ISSN: 0021-9738
DT Journal
LA English
OSC.G 32 THERE ARE 32 CAPLUS RECORDS THAT CITE THIS RECORD (32 CITINGS)

L7 ANSWER 17 OF 17 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Preparation and immunological uses of radio-iodinated oligosaccharide derivatives. I. Preparation of iodine-125-labeled oligosaccharide derivatives with the aid of 3-(4-hydroxyphenyl)propionic acid N-hydroxysuccinimide ester
AB 125I-labeled oligosaccharides were prepared by combining acylation and iodination in a 1-step procedure by successive addition of the ester, 3-(4-hydroxyphenyl)propionic acid N-hydroxysuccinimide ester (I), and 125I--chloramine T to the aminoalditol formed by reductive amination of the oligosaccharide. Thus, the oligosaccharide, NaCNBH3, and NH4OAc in MeOH-H2O (2:1) were refluxed for 6 h or stirred at 37° for 6 days; the resulting 1-amino-1-deoxy alditol was separated by high-voltage electrophoresis with .apprx.30% yield of theor. A solution of I and the aminoalditol in borate buffer, pH 8.5 was kept at 0° for 15 min, then carrier-free Na125I solution was added, followed by chloramine T in H2O (at room temperature). After 5 min the reaction was terminated by addition of Na2S2O5 followed by chromatog. on Sephadex G 25 or Dowex AG 1 + 2, Cl- form. The efficiency of radioiodination was 30%-75%, depending on the compound The immunoreactivity of the derivs. was assessed by using equilibrium dialysis and the Farr assay. 125I-labeled derivs. were prepared from isomaltotetrose, α-nigerosyl-1,3-nigerose, and the monomeric and dimeric repeating units of Klebsiella pneumoniae capsular polysaccharide. Derivs. of the 1st 2 compds. listed were virtually carrier-free with an extremely high sp. activity of .apprx.2 mCi/μg.
AN 1977:167377 HCAPLUS <<LOGINID::20090904>>
DN 86:167377
OREF 86:26281a,26284a
TI Preparation and immunological uses of radio-iodinated oligosaccharide derivatives. I. Preparation of iodine-125-labeled oligosaccharide derivatives with the aid of 3-(4-hydroxyphenyl)propionic acid N-hydroxysuccinimide ester
AU Himmelspach, K.; Geyer, H.; Hoyer, G.; Schepers, G.
CS Max-Planck-Inst. Immunbiol., Freiburg/Br., Fed. Rep. Ger.
SO FEBS Letters (1977), 75(1), 154-8
CODEN: FEBLAL; ISSN: 0014-5793
DT Journal
LA English